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Keynes's Revenge: An Essay on the Dichotomy between Savings and Investment in Pakistan

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Abstract

Pakistan's economy may have lost its high growth rate of 6%, driven by investment and now plods at 4%, switching to consumption as its driver of growth. The earlier 6% growth was driven by investment, whereas the latter 4% growth has been majorly consumption led. Consequently, the era of investment-led growth appears to be over, possibly irreversibly. As a result, consumption-led growth is now necessary. For this to be effective, consumption must be high for the consumption multiplier to work. Despite this, there is a persistent misconception that high investment is required, which necessitates a high savings rate. Pakistan's savings rate—approximately 12% of GDP—is comparable to that of Sub-Saharan Africa, prompting a search for alternative estimates beyond the SBP's reported 12%. Our findings indicate that savings are significantly higher than the 12% estimate; however, these domestic savings are not utilized for domestic investment due to outflows. This phenomenon can be interpreted as Keynes's revenge. Not only are savings a leakage from the aggregate demand within the domestic economy—consistent with the Keynesian model of the paradox of thrift—but also a leakage out of the domestic economy as outflows. As a result, they are lost to both domestic savings and domestic investment. To address this issue, we propose implementing a market mechanism to reduce these outflows of domestic savings.

Introduction

Isaiah Berlin's 1953 essay on the Greek parable of the "Hedgehog and the fox" is an apt metaphor for our neighborhood's economies.

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'The fox knows many things, but the hedgehog knows one big thing.'

Isaiah Berlin (1953)

Isaiah Berlin states that hedgehogs are thinkers who relate everything to a single central vision or system in terms of which they comprehend, think and feel. In contrast, foxes chase many ends that are often unrelated and even opposing.

Pakistan's growth rate has declined over the past three decades, shifting from over 6% per annum in the 1960s, 1970s, and 1980s—driven by investment—to just above 4% per annum from around 1990 onwards, driven by consumption (Ikram and Mahmood, 2022).

Earlier, Pakistan's 6% growth was driven by investment, whereas the latter 4% growth has been driven by consumption. Therefore, the days of investment-led growth are gone, perhaps irretrievably. Now, we need consumption-led growth, not investment-led growth. Consequently, we need consumption to be very high for the consumption multiplier to work. However, we persist in the misconception of needing high investment I , which requires a high savings rate S . We lament a Sub-Saharan African savings rate in Pakistan of approximately 12% of GDP.

The consequence of consumption-led growth C , is that consumption should be high, and therefore savings S , should be low. This aligns with John Maynard Keynes's model, where savings S is lost to aggregate demand Y , subsequently lowering output and growth. Therefore, instead of lamenting Pakistan's low-savings rate S , comparable to those in Sub-Saharan Africa, we should recognize the benefits of high consumption C and low savings S in the context of consumption-led growth.

We sought an estimate of savings S , beyond the SBP's 12% of GDP. Our findings indicate that savings are significantly higher than this estimate. These domestic savings S_{dom} , however are lost to domestic investment I_{dom} , due to outflows from domestic savings S_{out} . We estimate that approximately Rs 1.4 trillion (approximately \$8 billion) of domestic savings are diverted into outflows.

This calculation reveals that domestic savings are subject to a double leakage: Outflows are lost to domestic investment and also depress consumption. This phenomenon can be seen as Keynes's revenge, where Pakistan's growth cannot be driven either by investment or consumption, unless these outflows of savings are discouraged.

The remainder of the study is structured as follows: Section 2 sets out a conceptual framework to estimate savings in Pakistan; Section 3 Estimates equations for FY 2022 using this conceptual framework. Section 4 outlines the

Estimation of Outflows. Section 5 presents the estimation results and Section 6 concludes the paper.

2. A conceptual framework to estimate savings in Pakistan

A fundamental macroeconomic accounting identity posits that savings S , equal investment I , where savings are defined as income minus spending, and investment refers to physical investment, not financial investment. The identity stems from the national income equals national product identity. However, estimates from the Lahore School model indicate that investment stands at 16% of GDP (Mahmood et al., 2022) while the savings rate is estimated at 12% (SBP, 2023). This discrepancy between savings and investment highlights a dichotomy that warrants a comprehensive conceptual framework to explore in detail.

A macroeconomic framework can be employed to examine the dichotomy between savings and investment. This framework posits that the gap between domestic investment and domestic savings must be offset by a current account CA deficit. The following conceptual framework, comprising six key equations, elucidates the relationships underlying the deviation between savings and investment. Specifically, equation 7.1 states that the difference between investment I and aggregate saving S , is equal to current account CA .

$$I - S = CA \quad (7.1)$$

Aggregate saving S , comprise public savings S_{pub} , and private savings S_{priv} .

$$S = S_{pub} + S_{priv} \quad (7.2)$$

Public savings S_{pub} is the difference between taxation T and government expenditure G

$$S_{pub} = T - G \quad (7.3)$$

Private savings S_{priv} are given by output Y minus consumption C and taxation T .

$$S_{priv} = Y - C - T \quad (7.4)$$

Substituting equation 7.2 into equation 7.1 yields an expanded form where investment I minus the sum of public savings S_{pub} and private savings S_{priv} equals the current account CA .

$$I - (S_{pub} + S_{priv}) = CA \quad (7.5)$$

By expanding equation 7.5 further through substitution of equations 7.3 and 7.4, we get an expression where investment I minus the expanded term for public savings S_{pub} , which is taxation T minus government expenditure G and minus the expanded term for private savings S_{priv} , which is output Y minus consumption C minus taxation T , equals the current account CA .

$$I - \{(T-G) + (Y - C - T)\} = CA \quad (7.6)$$

This serves as a workhouse conceptual framework for estimating savings, assuming that all private savings S_{priv} , after accounting for consumption and disposable income $Y - T$, are available for domestic investment I .

However, the argument we wish to make is that not all domestic savings are available for domestic investment. Specifically, four components of domestic savings are not accessible for domestic investment: capital outflows, savings in foreign exchange, savings in gold, and savings in precious stones.

When capital flows out of the country, it is theoretically considered part of national savings but cannot be utilized for domestic investment purposes. Consequently, capital outflows reduce the proportion of private savings available for domestic investment.

Exchange rate volatility can lead individuals to hold their savings in foreign currency as cash instead rather than depositing into bank accounts. However, these foreign currency savings are not available for domestic investment purposes and do not contribute to the capital stock. Consequently, this can reduce the amount of private savings available for domestic investment in the economy.

Individuals may hold their savings in the form of precious metals and stones, which cannot be used for capital formation. These savings in high-value commodities are often not accounted for in estimates of private savings, thereby reducing the quantum of private savings available for domestic investment. Furthermore, the presence of a significant informal economy can lead to an underestimation of GNP, as well as the savings and investment, required to produce this GNP. Therefore, the share of the informal economy tends to reduce the estimated savings, reducing the funds available for investment.

This gives us an expanded equation (7), as:

$$I - (S_{pub} + S_{priv}) = (CA) + (a + b + c + d) \quad (7.7)$$

where;

(a) = Capital outflows from the country

(b) = Savings in foreign currency

(c) = Savings in the form of precious metals and stones

(d) = Informal economy

Where the investment minus saving gap $I - S$ is now equal to the current account plus capital outflows ($CA + K$), savings in foreign exchange, savings in precious metals and the impact of the informal economy. Gross National Disposable Income ($GNDI$) will be used for output Y , where $GNDI$ is equal to Gross National Income (GNI), minus current money transfers of outward remittance OR , plus total inward remittances IR to the country.

Therefore,

$$GNDI = GNI - OR + IR$$

3. Estimating these equations from our conceptual framework for FY 2022

Using observed data for FY 2022 from Pakistan, we first estimate equation 7.1.

$$I - S = CA \quad (7.1)$$

Pakistan's investment for FY 2022 is PKR 9,334 billion.

$$9,334 - S = CA$$

From equations 7.2,

$$S = S_{\text{pub}} + S_{\text{priv}} \quad (7.2)$$

and 7.3,

$$S_{\text{pub}} = T - G \quad (7.3)$$

$$\begin{aligned} S_{\text{pub}} &= 8,035.4 - 13,295.3 \\ &= -5,260 \text{ bn} \end{aligned}$$

Therefore, the public sector experiences dissaving of PKR 5,260 billion.

From equation 7.4,

$$\begin{aligned} S_{\text{priv}} &= Y - C - T \\ &= 9,796.3 \end{aligned} \quad (7.4)$$

Therefore, the private sector saves to partially compensate for the dissaving of the public sector, giving aggregate savings (S)

$$S = -5,260 + 9,796.3$$

$$S = 4,536.3 \text{ bn}$$

Putting this estimate of investment and savings into equation 7.6, gives an investment savings gap $I - S$ of:

$$9,334 - 4,536.3 = CA \quad (7.6)$$

$$CA = 4,797.7$$

This gives an estimated current account CA of PKR 4,797.7 billion. However, the observed CA is PKR 3,102 billion. Therefore, according to equation 7.6, the $I - S$ gap should be smaller, equaling PKR 3,102 billion. This implies that savings should be higher than that given by equation 7.6. The difference between our estimated CA given by the $I - S$ gap and the observed CA is PKR 1,695.7 billion.

This difference is not well explained by equation 7.6. Therefore, we use equation 7.7 to explain this.

$$I - (S_{\text{pub}} + S_{\text{priv}}) = (CA) + (a + b + c + d) \quad (7.7)$$

Table 1 estimates the investment-saving gap for FY 2022.

Table 1: Investment-Saving Gap FY 2022

Symbol	Indicator	2022 (PKR Billion)
I	Total Investment	9,334
S_{pub}	Public Saving ($T - G$)	-5,260
Y	GNDI	71,487
C	Consumption (private)	57,122
T	Taxes (current prices)	4,568
S_{priv}	Private Saving ($Y - C - T$)	9,796
S	National Saving ($S_{\text{pub}} + S_{\text{priv}}$)	4,536
$I - S$	Investment and Saving Gap	4,797
CA_{obs}	Observed Current Account deficit	3,102
$(I - S) - CA_{\text{obs}}$	$I - S$ gap and the observed CA gap	1,695

4. Estimation of Capital Outflows

The key variable to be estimated from the capital account KA is capital outflows, which are theorised to comprise four major components (Mahmood & Chaudry, 2020). These components are derived from the SBP's accounting framework for the Current Account CA and Capital Accounts KA.

The central argument for conceptualising capital outflows, based on our earlier work, posits that these outflows are determined by domestic profitability relative to foreign profitability (Mahmood & Chaudry, 2020). Specifically, if domestic profitability declines relative to foreign profitability, capital outflows are likely to increase. Conversely, if domestic profitability rises relative to foreign profitability, capital outflows are likely to decrease.

Therefore, the definition of capital outflows must commence with domestic outflows for foreign investment, which are primarily derived from the KA side. Additionally, a strong case can be made for including capital outflows from the CA side, specifically the repatriation of yields from foreign-held domestic assets (Mahmood & Chaudry, 2020). This results in four major components identified from the SBP's accounting framework:

Total net outflows from Pakistan are equal to the sum of direct investment abroad, portfolio investment abroad, net incurrence of assets and net outflows of primary income from the CA (primary income balance), where the sum of direct investment abroad, portfolio investment abroad and net incurrence of assets equals the net outflows from financial accounts (FA).

Table 2 below estimates the net outflows from FY 1990 to FY 2022 using this equation as specified in Mahmood & Chaudry (2020).

Table 2: Total net outflows FY 1990 - FY 2022(US\$ million)

Year	Direct Investment abroad (A)	Portfolio investment abroad (B)	Net acquisition of financial assets (C)	Net outflows from FA D=A+B+C	Net outflows from CA (Primary income) (E)	Total Net Outflows (D+E)
1990	12	0	-272	-260	878	618
1991	7	0	-448	-441	941	500
1992	8	0	-291	-283	1,123	840
1993	-4	0	-702	-706	1,389	683
1994	-6	0	-181	-187	1,447	1,260
1995	3	0	-140	-137	1,359	1,222
1996	-4	0	140	136	1,804	1,940
1997	-18	0	64	46	2,203	2,249
1998	29	0	-367	-338	2,188	1,850
1999	44	0	-34	10	1,803	1,813
2000	-1	549	-449	99	1,972	2,071

Year	Direct Investment abroad (A)	Portfolio investment abroad (B)	Net acquisition of financial assets (C)	Net outflows from FA D=A+B+C	Net outflows from CA (Primary income) (E)	Total Net Outflows (D+E)
2001	37	140	-291	-114	2,203	2,089
2002	2	491	236	729	2,207	2,936
2003	27	0	434	461	2,211	2,672
2004	45	-3	-546	-504	2,207	1,703
2005	66	-11	-1,235	-1180	2,386	1,206
2006	71	-22	-209	-160	2,667	2,507
2007	114	5	-758	-639	3,582	2,943
2008	75	5	32	112	3,923	4,035
2009	25	1,073	560	1,658	4,407	6,065
2010	76	65	-11	130	3,282	3,412
2011	44	7	-920	-869	3,017	2,148
2012	77	32	-9	100	3,245	3,345
2013	198	99	314	611	3,669	4,280
2014	128	-23	-211	-106	3,955	3,849
2015	73	-41	-71	-39	4,599	4,560
2016	19	100	96	215	5,347	5,562
2017	86	-1	1,180	1,265	5,048	6,313
2018	10	-48	210	172	5,282	5,454
2019	-74	-144	-67	-285	5,610	5,325
2020	-54	-115	-127	-296	5,459	5,163
2021	171	-12	1,345	1,504	4,400	5,904
2022	234	-24	26,13	2,823	5,248	8,071

Source: Mahmood & Chaudry (2020)

Table 3: Total Net outflows FY 2022 (US\$ million)

Direct Investment Abroad (A)	Portfolio investment abroad (B)	Net acquisition of financial assets (C)	Net outflows from FA D=A+B+C	Net outflows from CA (Primary income) (E)	Total Net Outflows (D+E)
234	-24	2,613	2,823	5,248	8,071

Source: Mahmood & Chaudry (2020)

This gives us the following equation:

$$\text{Total Net outflows} = \text{Net outflows from Financial Account} + \text{Net outflows from CA} \quad (7.8)$$

where,

$$\text{Net outflows from FA} = \text{Direct Investment abroad} + \text{Portfolio investment abroad} + \text{Net acquisition of financial assets} \quad (7.9)$$

The net outflows for FY 2022 are given in Table 3 where the total net outflow of US\$ 8,071 million approximately equals PKR 1,651 billion.

5. Estimated vs. Observed Gap

We will use our new conceptual framework of saving and investment combined with the conceptual framework by Mahmood & Chaudry (2020) for outflows. We incorporate total net outflows in our mum equation to approximate it to our observed CA of PKR 3,102 billion.

Therefore,

$$I - S - (\text{Total net outflow}) = CA \quad (7.10)$$

$$4,797.7 - 1,651.5 = 3,146.3$$

This is approximately equal to Pakistan's current account balance of PKR 3,102 billion for FY 2022.

The difference between the observed gap PKR 3,102 billion and the gap estimated by our equation PKR 3,146.2 billion equals PKR 44.2 billion which can be explained by cash savings in foreign exchange, savings in the form of precious metals, and informal sectors.

Private savings have been captured in Equation 7.1, where the $I - S$ gap is equal to CA has to be based on equation 7.7, where private domestic savings are supplemented by capital flight and unmeasured variables in equation 7.7 (b to d).

So domestic savings, S_{dom} , are actually:

$$S_{dom} = (S_{pub} + S_{priv}) + S_{out} \quad (7.11)$$

$$5,221 = 4,536.3 + 1,651.5$$

Where PKR 1,651.5 billion outflows are savings lost to domestic investment and domestic consumption. This is referred to as Keynes's revenge. Policy must establish a market mechanism to reduce these outflows of domestic savings.

6. Conclusion

Savings are a leakage from aggregate demand in the domestic economy. This invokes the Keynesian (1936) model of the paradox of thrift, which posits that if all individuals collectively increase savings by cutting their spending, aggregate demand will fall, thereby reducing aggregate income. Consequently, savings will also decline, creating a paradox where increasing individual savings can result in decreased aggregate savings.

Our argument extends this concept by highlighting that savings, particularly those constituting capital outflows as observed in Pakistan, give a double whammy. First, savings reduce aggregate demand. Secondly, the component of savings constituting outflows from the domestic economy are also lost to domestic investment, which is referred to here as Keynes's revenge.

Encouraging savings in developing countries through fiscal policies can be a highly effective strategy to foster economic stability and growth. To retain domestic savings and control capital outflows, policymakers should implement a range of measures. These include capital controls, tax incentives for local savings, competitive interest rates, attractive domestic investment opportunities, strengthened local financial institutions, and promotion of financial literacy. Furthermore, streamlining regulatory processes for investments, supporting local enterprises, stabilizing the local currency, and promoting long-term savings plans will also contribute to retain savings within the country.

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